

POLLEN MORPHOLOGY OF THE GENUS ECHIOCHILON (BORAGINACEAE) IN IRAN

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Two species of the genus *Echiochilon* are distributed in Iran. The pollen of both species, i. e. *E. kotschyi* and *E. persicum* are described and illustrated in SEM.

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ریخت شناسی دانه گرده در گونه های جنس *Echiochilon* (Boraginaceae)
در ایران

شاهرخ کاظم پور اصالو و محبوبه خاتم ساز

دو گونه از جنس *Echiochilon* از ایران گزارش شده است. دانه گرده هر گونه شامل *E. persicum*, *E. kotschyi* با استفاده از میکروسکوپ الکترونی اسکینینگ (SEM) تشریح و عکس برداری شده اند.

INTRODUCTION

This paper is part of a work on the taxonomy of the tribe *Eritrichiae* Benth. & Hook. in the flora of Iran. The work was done by Sh. Kazempour Osaloo for a M. Sc. degree in the Faculty of Science, Tarbiat Modaress University, Tehran.

MATERIALS AND METHODS

Anthers were removed from the herbarium specimens. Samples were coated with gold for 7 minutes in E-5200 Autosputter. Then, these were examined and photographed with Steroscan 360 SEM.

Thirty measurements of pollen size (P and E) were made for each sample. The terminology of Faegri & Iversen (1989) has been followed.

Pollen material was obtained from the herbarium specimens. Details of the specimens studied are given below:

Echiochilon kotschy (Boiss. & Hohen.) I. M. Johnston. - Bushehr: Bushehr road to Bandar Lengeh, 47 km SE. of Taheri, 30 m, Wendelbo & Bokhari 259 (TARI).

Echiochilon persicum (Burm.f.) I. M. Johnston. - Bushehr: Bushehr, 9 km. Asaloo toward Taberi, 3.21.1975, Iranshahr & Termeh. (IRAN).

RESULTS

1. *Echiochilon kotschy* (Boiss. & Hohen.) I. M. Johnston. - (Fig.1).

Pollen small sized: P=12.70 (14.65) 16.54 μm , E=9.10 (10.53) 12.90 μm , subprolate-spheroidal [P/E=1.28(1.38) 1.50]. Outline elliptic, unconstricted in equatorial view and circular in polar view. Subterminal bicolpate, 1-2 x 6-10 μm , situated in two sides. Grains with bilateral symmetry. Tectum psilate-perforate with granules around the colpi. Exine relatively thick.

2. *Echiochilon persicum* (Burm.f.) I. M. Johnston. - (Fig.2).

Pollen small sized: P=14.60 (15.75) 17.40, μm , E=9.61 (11.40) 13.30 μm , subprolate-spheroidal [P/E=1.18 (1.39)1.76]. Outline elliptic, unconstricted in equatorial view and circular in polar view. Subterminal bicolpate or tricolpate, 1-3 x 6-11 μm , situated in two sides. Grains with bilateral symmetry. Tectum psilate-perforate with granules around the colpi. Exine relatively thick.

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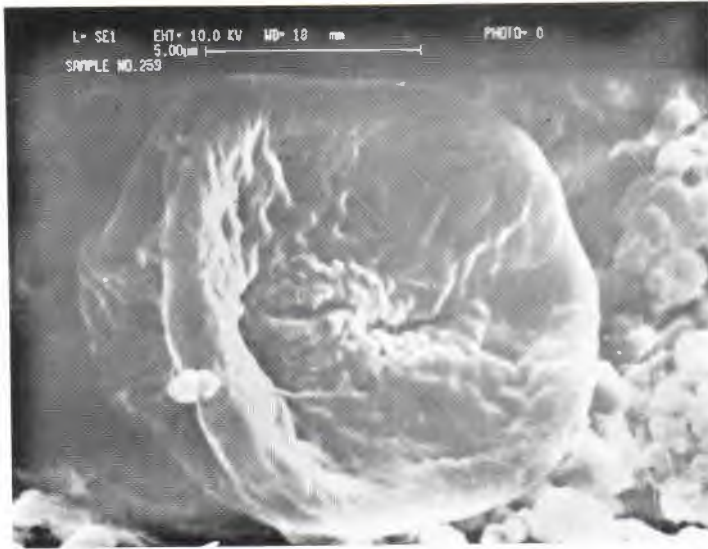


Fig. 1. Pollen grain of *Echiochilon kotschy*, equatorial view (x7500).



Fig. 2. Pollen grain of *Echiochilon persicum*, equatorial view (x6570).

preparing the electron micrographs.

REFERENCE

Faegri, K. and Iversen, J. 1989: Textbook of pollen Analysis- New York.